OQ® Analyst

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Web Service Interface Summary

Version 0.3

Revision History

Date	Version	Description	Author
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Web Service Interface Summary

1. Introduction

This document outlines how the OQ®-Analyst Web Service Interface (also referred to as the WSI) can be used to allow external programs to access data stored in the OQ®-Analyst application. The WSI is the primary method by which OQ®-Analyst can be integrated with Electronic Medical Record (EMR) systems or other databases used by mental health facilities. Integration will allow the system to be more efficient by decreasing data entry time and increasing the quality of input data.

The WSI allows a clinic to import and export data from the system using predefined methods designed for specific tasks such as adding a new client or retrieving questionnaire results. Web services do not provide user interfaces for direct interaction by users but instead are links into the application that must be utilized by external programs. Because of this, the WSI also includes a windows form application that provides an initial user interface that allows users to begin accessing the enhanced data import and export functions immediately while the site engineers develop an automated system to connect directly to the WSI. This document outlines how the WSI can be used though both the windows form application and by interacting directly with the raw web services.

1.1 Definitions, Acronyms and Abbreviations

- **OQ®-Analyst (OQ®-A)** - a third generation software product with the first version appearing in 1996 and the second version in 1999. This enhanced version was created with user input to improve the features and functionality of the software product.
- **Client** – a patient receiving mental health treatment.
- **EMR** – electronic medical record
- **Import/Export password** – password set by the OQ®-Analyst system administrator that is required when accessing the WSI

2. Web Service Technology Overview

Web services are an industry standard method for sending and receiving information through the use of open standards and protocols such as Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL), Extensible Markup Language (XML), and HyperText Transfer Protocol (HTTP). By utilizing HTTP, web services can work through many common firewall security measures without requiring changes to the filtering rules. Web services can provide interoperability between various software applications running on different platforms and allow software and services from different locations to be combined into an integrated service.

The OQ®-Analyst WSI is build using web services from the Microsoft .Net Framework; however, web services are supported by many other programming languages and development platforms. Accessing the raw web services requires an understanding of basic web service technology as well as a mid-level understanding of XML. The windows form application does not require a high level of technical knowledge to operate; however, some data is only accessible through the raw web service interface. For more information about web service technology please visit the following website:

http://msdn.microsoft.com/webservices/webservices/

3. Security

Security for the WSI is provided through the use of an Import/Export password set by the system administrator. The password is a required parameter when using the WSI to prevent unauthorized users from accessing data within the system. The WSI also uses Secure Socket Layer (SSL) technology to encrypt all communication between the client and the OQ®-Analyst server.

4. Raw Web Service Interface

The raw web service interface gives full access to all methods in the WSI through the use of web service technologies such as WSDL, XML and SOAP. The raw web services are not directly accessible to users, but instead are used by developers to systematically import and export information from within the OQ®-Analyst system. Many programming languages offer libraries to assist developers in using web services (follow link in section 2 for more information). See section 6 of this document for instructions on accessing a demonstration version of the raw WSI.

5. Windows Form Application

5.1 Overview

Because web services do not provide user interfaces the WSI also include a windows form application in which the user can set parameters and retrieve data in a standard text format. The application interacts with the raw methods of the WSI to retrieve the requested information and saves the results in a comma or tab delimited text file for maximum compatibility. The application also has command line capabilities to facilitate batch file programming and allows clinics to begin accessing the enhanced data import and export functions immediately while the site engineers develop an automated system to connect directly to the WSI.

NOTE: Not all web services are accessible through the Windows Form Application Program.

5.2 Graphical User Interface

The graphical user interface allows the user to interact with the WSI using a normal windows application. The user sets parameters inside of the program and then clicks a button to begin the execution. Figure 1 shows an example of what the application looks like; however, the exact methods could change depending on the services offered through the WSI.

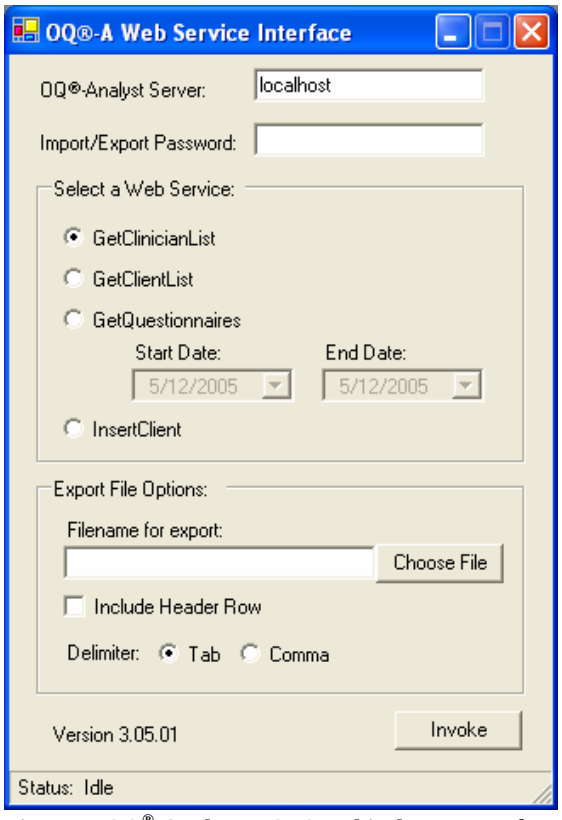

Figure 1: OQ®-Analyst WSI Graphical User Interface

5.3 Command Line Interface

The command line interface allows access to the WSI using a standard windows console by setting parameters when calling the OQAnalystWSI executable. Below is an example of how the command line interface might be used to exports all questionnaires completed during a specified date range into a file named c:\OQAexport.txt with all system messages being written to a log file named c:\OQALog.txt. The OQAexport.txt file would be comma delimited and contain a header row with the names of each column.

```
> OQAnalystWSI pw=MyPassword function=getquestionnaires startdate=01/01/2006
enddate=02/01/2006 file=c:\OQAexport.txt log=c:\OQALog.txt delimiter=comma
header=true execute=true
```

6. Demonstration Version

A working example of the raw web service interface can be found at the web address listed below; however, the exact methods could change depending on the services offered through the WSI. The demonstration includes fictitious clients and outcome data and you can add additional clients if desired, however all data will be deleted on a periodic basis.

WSI Web Address:	https://demo.oqmeasures.com/OQA/services/ExportImportService.asmx
WSDL Address:	https://demo.oqmeasures.com/OQA/services/ExportImportService.asmx?WSDL
Import/Export password:	12345

You can also login to the employee page using the information listed below. This user name and password will give full access to all features and clients data; however, users would normally login using their own unique account and would only be able to view the sections and client data for which they are authorized.

Employee Login Web Address:	https://demo.oqmeasures.com/OQA/
Employee Username:	admin
Employee Password:	admin

7. Additional Information

After the exact specification for the WSI are finalized and the system is fully implemented, administrators will be provided a user guide that contains a detailed description of each method in the WSI. These methods can then be accessed as outlined above and used to integrate OQ®-Analyst with EMR systems or other databases used by mental health facilities.